receiving ingoing digital communication signals from an ultra-wideband radio containing location information from each of a plurality of other devices in a location determination system;

determining ranging information of each of the plurality of other apparatuses by:

generating and producing outgoing digital transmission signals and receiving responsive ingoing digital communication signals via the ultra-wideband communication messages; and

determining associated transmission time of flight between the apparatus and the plurality of other apparatuses;

determining distances between the apparatus and the plurality of other apparatuses from the determined ranging information; and

determining an apparatus location estimate based on the determined distances;

Kalman filtering, the apparatus location estimate to statistically determine a probable location of the apparatus having a first degree of resolution; and

receiving linear acceleration information from at least one MEMs device;

adaptive low-pass filtering the probable apparatus location estimate and the linear acceleration information to obtain a second degree of resolution that is more precise than the first degree of resolution.

18. The non-transitory CRM of claim 17 further including computer instructions for evaluating at least one of temperature and pressure information as a part of determining the probable location.

19. The non-transitory CRM of claim 17 further including computer instructions for evaluating acceleration information produced by the MEMs device and Kalman filtering the acceleration information to produce the linear acceleration information.

20. The non-transitory CRM of claim 19 further including computer instructions for:

defining A and O Kalman filters and for receiving acceleration information from the MEMs device and producing acceleration information to the A and O Kalman filters; and

combining outputs of the A and O Kalman filters to determine the linear acceleration information.

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